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(54) SEMICONDUCTOR INTEGRATED CIRCUIT

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a differential amplifier circuit which is fast and low in power consumption by cutting the stationary through current flowing in the circuit and swinging the output fully from the power source voltage to the ground potential.

SOLUTION: This semiconductor integrated circuit is provided with a differential amplifier circuit 1 and delay circuits 2, 3. In the differential amplifier circuit 1, the power source and the ground are respectively connected with a load circuit 11 and a MOSFET 16 of constant-current source. Between the circuit 11 and the MOSFET 16, a parallel circuit composed from a series circuit of a driving MOSFET 12 whose gate is connected with a data line 4 and a through current cutting MOSFET 14 and another series circuit of a driving MOSFET 13 whose gate is connected with a data line 5 pairing with the line 4 and a through current cutting MOSFET 15 is connected. The delay circuit 2 outputs the delayed output 6 of the differential amplifier circuit 1 to the gate of the through current cutting MOSFET 15 while the delay circuit 3 outputs the delayed output 7 of the

differential amplifier circuit 1 to the gate of the through current cutting MOSFET 14.

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